Resources and Development

Chapter 1 · Geography

Reading Guide · Glossary · Comprehension · Practice Questions · 10 Puzzles

NCERT Companion Workbook · Based on “Contemporary India II, Geography, NCERT Class X”

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Chapter Overview

This chapter explains what turns raw material from nature into a usable resource, and why unplanned exploitation of resources creates social and ecological strain. It surveys how India's land is divided among farming, forests, pasture and settlement, and traces how soils differ by the rock, climate and relief that formed them. It closes by connecting the everyday human activities that cause soil erosion to the field techniques used to slow it down.

Reading & Study Guide

Section	What to Focus On
Resources	Notice what three conditions turn a natural object into a usable resource.
Development of Resources	Track why unchecked resource use created global-scale problems.
Resource Planning in India	See how uneven resource spread across states demands planning.
Land Resources and Land Use Pattern	Compare how India's land is split among competing uses.
Soil as a Resource	Map how relief, climate and parent rock shape each soil type.
Soil Erosion and Conservation	Connect specific erosion causes to the methods used to check them.

Key Terms Glossary

Term	What It Means
RESOURCE	Anything from nature usable to satisfy human needs
RENEWABLE	A resource nature can replenish repeatedly over time
EXHAUSTIBLE	A resource that depletes and cannot regenerate quickly
SUSTAINABLE	Development meeting present needs without harming future generations
CONSERVATION	Careful, planned use of resources to prevent their depletion
ALLUVIAL	Fertile soil deposited by rivers across the northern plains
BANGAR	Older, less fertile alluvial soil found away from riverbeds
KHADAR	Newer, more fertile alluvial soil found near river floodplains
REGUR	Local name for the moisture-retaining black cotton soil

LATERITE	Reddish soil formed by heavy leaching in wet-dry climates
HUMUS	Organic, decayed matter that enriches soil fertility
EROSION	Gradual wearing away of the topmost soil layer
GULLY	Deep channel cut into land by concentrated running water
DEGRADATION	Decline in land quality caused by misuse or neglect
INFILTRATION	Process by which rainwater seeps down into the soil
TERRACE	Stepped fields cut into slopes to slow water flow
CONTOUR	Ploughing along a slope's level lines to reduce runoff
SHELTERBELT	Tree rows planted to break the wind's force
LEACHING	Removal of soil nutrients by heavy percolating rainfall
FALLOW	Cultivable land deliberately left unsown for a season
PASTURE	Grassland set aside for grazing livestock
KANKAR	Calcium-rich hard nodules found in lower soil layers
SALINITY	Excess salt content in soil, often from over-irrigation
OVERGRAZING	Excess livestock grazing that strips land of vegetation cover
TOPSOIL	Uppermost, most fertile layer of the soil profile

Comprehension Questions

Q1. What conditions must be met before something in nature counts as a resource?

Q2. Why did unregulated use of resources create social and ecological problems?

Q3. What is meant by sustainable development, and why did the Rio Earth Summit matter for it?

Q4. Why does India need resource planning at different levels?

Q5. How is net sown area different from gross cropped area?

Q6. What human activities have accelerated land degradation in India?

Q7. Describe the main differences between bangar and khadar soils.

Q8. Why is black soil particularly suited to cotton cultivation?

Short-Answer Practice (Worked Examples)

Q1. Which soil type dominates the Deccan plateau region?

Q2. Name one measure used to control erosion on hill slopes.

Q3. Why is Rajasthan rich in some resources but poor in others?

Q4. What does the statement 'resources are not free gifts of nature' mean?

Q5. Why are Jharkhand, Chhattisgarh and Madhya Pradesh described as mineral-rich states?

Objective Practice

A. Multiple Choice Questions

Circle the correct option.

1. Which is the main cause of land degradation in Punjab, according to the chapter?

a) Intensive cultivation

b) Deforestation

c) Over-irrigation

d) Overgrazing

2. In which state is terrace cultivation especially well developed?

a) Punjab

b) Plains of Uttar Pradesh

c) Haryana

d) Uttarakhand

3. In which state is black soil predominantly found?

a) Uttar Pradesh

b) Maharashtra

c) Rajasthan

d) Jharkhand

4. Resources classified as individual, community, national or international are grouped on the basis of what?

a) Origin

b) Ownership

c) Exhaustibility

d) Status of development

5. Which of these is a non-renewable resource?

a) Sunlight

b) Wind

c) Coal

d) Flowing water

6. Which international report first popularised the term 'sustainable development'?

a) Agenda 21

b) Brundtland Commission Report

c) Rio Declaration

d) National Forest Policy

7. The older alluvial soil, found away from active floodplains, is known as?

a) Khadar

b) Regur

c) Bangar

d) Laterite

8. Which soil type develops from intense leaching under alternating wet and dry tropical seasons?

a) Alluvial

b) Black

c) Arid

d) Laterite

9. Which of these is a category used in classifying land under 'land use pattern'?

a) Gross domestic product

b) Net sown area

c) Balance of trade

d) Sericulture

10. Which measure directly slows water flow down a slope by aligning ploughing with its level lines?

a) Strip cropping

b) Contour ploughing

c) Shelterbelt planting

d) Afforestation

B. True or False

1. Resources are freely available gifts of nature that need no human intervention to be useful.
2. The 1992 Rio Earth Summit adopted Agenda 21 to promote sustainable development.
3. Bangar soil is younger than khadar soil.
4. Black soil is also known as regur soil.
5. Contour ploughing speeds up the flow of water down a slope.
6. Overgrazing is a major cause of land degradation in states like Gujarat and Rajasthan.
7. Net sown area refers only to land sown more than once in an agricultural year.
8. Laterite soil forms well in regions with alternating wet and dry seasons.

C. Match the Following

Column A	Column B
1. Bangar	a) Older alluvial soil away from the river floodplain
2. Khadar	b) Deep channels cut by concentrated water flow
3. Regur	c) Newer alluvial soil deposited near riverbanks

4. Laterite	d) Farming along slope contours to slow runoff
5. Kankar	e) Black soil especially suited to cotton
6. Gully erosion	f) Calcium-rich nodules found in dry-region soils
7. Shelterbelt	g) Soil formed by intense leaching in a tropical climate
8. Contour ploughing	h) Rows of trees planted to block wind erosion

Higher-Order Thinking (HOTS) Questions

Q1. A region rich in resources can remain economically backward, while a resource-poor region can prosper. What does the chapter suggest explains this, and do you agree?

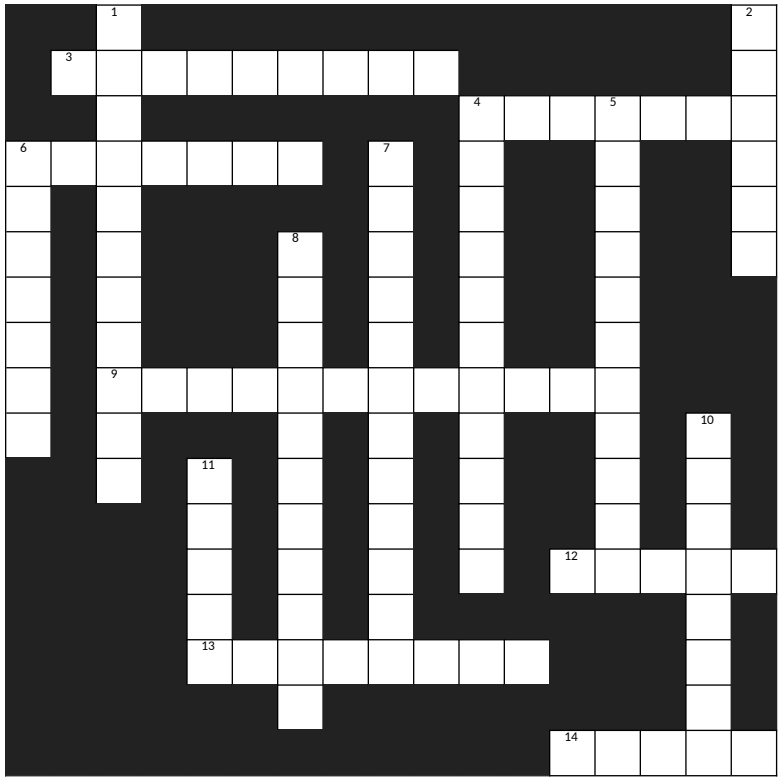
Q2. How might expanding net sown area at the cost of pasture and forest land create long-term problems even while boosting short-term food output?

Q3. Suggest two locally appropriate methods a farmer in a hilly, high-rainfall area could use to limit soil erosion, and explain why each suits that terrain.

Q4. Why might a resource-planning policy that works well in Punjab fail if applied unchanged to Arunachal Pradesh?

Puzzle Pack -- 10 Puzzles for This Chapter

1. Crossword



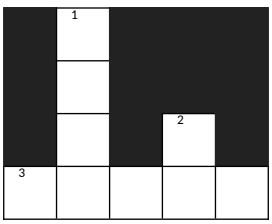
ACROSS

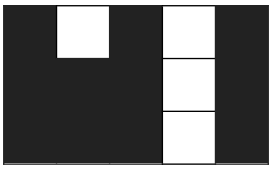
3. A resource nature can replenish repeatedly over time
4. Gradual wearing away of the topmost soil layer
6. Stepped fields cut into slopes to slow water flow
9. Process by which rainwater seeps down into the soil
12. Local name for the moisture-retaining black cotton soil
13. Excess salt content in soil, often from over-irrigation
14. Deep channel cut into land by concentrated running water

DOWN

1. Decline in land quality caused by misuse or neglect
2. Calcium-rich hard nodules found in lower soil layers
4. A resource that depletes and cannot regenerate quickly
5. Development meeting present needs without harming future generations
6. Uppermost, most fertile layer of the soil profile
7. Careful, planned use of resources to prevent their depletion
8. Tree rows planted to break the wind's force
10. Fertile soil deposited by rivers across the northern plains
11. Organic, decayed matter that enriches soil fertility

2. Mini Crossword





ACROSS

3. Organic, decayed matter that enriches soil fertility

DOWN

1. Local name for the moisture-retaining black cotton soil
2. Deep channel cut into land by concentrated running water

3. Word Search

R	E	N	E	W	A	B	L	E	A	C	H	I	N	G
C	O	N	S	E	R	V	A	T	I	O	N	A	W	N
Y	D	B	I	D	E	G	R	A	D	A	T	I	O	N
T	S	A	L	I	N	I	T	Y	W	J	B	I	L	O
E	T	I	R	E	T	A	L	T	A	T	T	F	L	V
J	P	A	S	T	U	R	E	U	Q	A	L	Y	A	E
T	O	P	S	O	I	L	X	E	R	O	Z	E	F	R
A	P	G	O	V	C	O	N	T	O	U	R	R	L	G
T	L	E	B	R	E	T	L	E	H	S	T	O	A	R
K	A	N	K	A	R	I	X	P	H	T	E	S	I	A
H	U	M	U	S	F	R	E	G	U	R	R	I	V	Z
E	L	B	A	N	I	A	T	S	U	S	R	O	U	I
O	J	U	I	R	A	G	N	A	B	N	A	N	L	N
E	L	B	I	T	S	U	A	H	X	E	C	L	L	G
S	K	R	E	S	O	U	R	C	E	E	E	K	A	J

Find: ALLUVIAL · BANGAR · CONSERVATION · CONTOUR · DEGRADATION · EROSION · EXHAUSTIBLE · FALLOW · HUMUS · INFILTRATION · KANKAR · LATERITE · LEACHING · OVERGRAZING · PASTURE · REGUR · RENEWABLE · RESOURCE · SALINITY · SHELTERBELT · SUSTAINABLE · TERRACE · TOPSOIL

4. Cryptogram

Each letter was replaced by another. Crack the code.

GQVCSAF YFQBBOBJ IAVBZ FQBE QBE ZKOF OBIK FQZIOBJ VCZKAVGCZ.

5. Caesar Coded Message

Every letter is shifted by the same amount. Find the shift.

YLZVBYJLZ HUK KLCLSVWTLUA. JHYLMBS WSHUUPUN ABYUZ SHUK HUK ZVPS PUAV SHZAPUN YLZVBYJLZ.

6. Word Scramble

Unscramble each set of letters using the clue.

1. ATREERC -- Stepped fields cut into slopes to slow water flow
2. SSLINEUAABT -- Development meeting present needs without harming future generations
3. RTAEUSP -- Grassland set aside for grazing livestock
4. EENEABLRW -- A resource nature can replenish repeatedly over time
5. URCRSEOE -- Anything from nature usable to satisfy human needs
6. HLCIAENG -- Removal of soil nutrients by heavy percolating rainfall
7. RAAHDK -- Newer, more fertile alluvial soil found near river floodplains
8. NOROSEI -- Gradual wearing away of the topmost soil layer
9. LVULAIAL -- Fertile soil deposited by rivers across the northern plains
10. OCTUONR -- Ploughing along a slope's level lines to reduce runoff

7. Acrostic

The highlighted letters spell a theme.

R _ _ _ _ _ _ _ _ Anything from nature usable to satisfy human needs

E _ _ _ _ _ _ _ _ _ _ _ A resource that depletes and cannot regenerate quickly

S _ _ _ _ _ _ _ _ _ _ _ Development meeting present needs without harming future generations

O _ _ _ _ _ _ _ _ _ _ _ Excess livestock grazing that strips land of vegetation cover

U _ _ _ _ _ _ _ _ Fertile soil deposited by rivers across the northern plains

R _ _ _ _ _ _ _ _ _ A resource nature can replenish repeatedly over time

C _ _ _ _ _ _ _ _ _ _ _ _ Careful, planned use of resources to prevent their depletion

E _ _ _ _ _ _ _ Gradual wearing away of the topmost soil layer

S _ _ _ _ _ _ _ _ _ _ _ Tree rows planted to break the wind's force

8. Match the Pairs

Match Column A with Column B.

Column A	Column B
A. CONSERVATION	1. Stepped fields cut into slopes to slow water flow
B. ALLUVIAL	2. Organic, decayed matter that enriches soil fertility
C. SALINITY	3. A resource nature can replenish repeatedly over time
D. EXHAUSTIBLE	4. Fertile soil deposited by rivers across the northern plains
E. TOPSOIL	5. A resource that depletes and cannot regenerate quickly
F. HUMUS	6. Excess salt content in soil, often from over-irrigation

G. RENEWABLE	7. Uppermost, most fertile layer of the soil profile
H. TERRACE	8. Careful, planned use of resources to prevent their depletion

9. Fill in the Blanks

Fill each blank.

1. Farmers plough along a slope's level lines, a technique called _____ ploughing.
2. The older, less fertile alluvial soil lying away from river floodplains is known as _____.
3. Rows of trees planted to reduce wind-driven soil loss are called a _____.
4. Development that does not compromise the needs of future generations is called _____ development.
5. Excess salt build-up in over-irrigated soil is called _____.
6. Black cotton soil is also known by its local name, _____.
7. Soil deposited by rivers across the northern plains is called _____ soil.
8. Deep channels cut by fast-flowing water on bare land are known as _____ erosion.

10. Odd One Out

Circle the item that does not belong.

1. Laterite Black Alluvial Erosion
2. Afforestation Mining Deforestation Overgrazing
3. Terracing Gully erosion Strip cropping Contour ploughing
4. Renewable Community Individual National